

CLAIMS

1. Ultra violet water disinfection device including a plurality of UV lights (31), each protected by at least one sheath (32) made of a material that is transparent to UV radiation with a shape that is more or less cylindrical, the said device comprising means for cleaning the said sheaths including at least one scraping ring (7) surrounding each sheath that is capable of being driven along the said sheath (32) by means of driving means (5), in which the said scraping rings (7) are mounted on at least one drive assembly comprising support means (41) held by at least one drive arm (42) joined to the said drive means (5), characterised in that the said support means (41) of each scraping ring (7) comprise at least one sealed bush inside which the said scraping ring (7) is mounted and in that the said support means (41) form, with the said drive arm or arms (42) a one piece drive assembly.

2. Ultra violet water disinfection device of claim 1, characterised in that the said scraping rings (7) have a slot (72) that allows their geometry to be varied.

3. Ultra violet water disinfection device of any of claims 1 or 2, characterised in that the said scraping rings (7) have an external peripheral groove (74) that acts as a housing for a bush of the said support means (41).

4. Ultra violet water disinfection device of any of claims 1 to 3, characterised in that each of the said scraping rings (7) cooperates with elastic return

means (73) which tend to clamp the said ring (7) onto the said sheath (32).

5. Ultra violet water disinfection device of claim 4, characterised in that the said elastic return means 5 (73) comprise an annular spring.

6. Ultra violet water disinfection device of any of claims 4 or 5, characterised in that the said elastic return means (73) are housed in the said external peripheral groove (74) of the said ring (7).

10 7. Ultra violet water disinfection device of any of claims 4 or 5, characterised in that said elastic return means (73) form part of the said ring (7).

15 8. Ultra violet water disinfection device of any of claims 3 to 7, characterised in that the said peripheral groove (74) and/or the said bush are dimensioned so that there is a clearance between the support (41) and the internal flanks of the said peripheral groove (74).

20 9. Ultra violet water disinfection device of any of claims 3 to 7, characterised in that the depth of the said groove (74) is dimensioned so that there is an annular clearance between the said bush on the one hand, and the bottom of the said groove (74) and/or the said elastic return means (73) on the other hand.

25 10. Ultra violet water disinfection device of any of claims 1 to 9, characterised in that the said drive assembly or assemblies each comprise at least two drive arms (41) between which extend a plurality of bushes disposed transversally at least in twos between the 30 said arms (42).

11. Drive element designed to equip an ultra violet radiation water disinfection device including a plurality of UV lights (31), each protected by at least one sheath (32) made of a material that is transparent to UV radiation with a shape that is more or less cylindrical, the said device comprising means for cleaning the said sheaths including at least one scraping ring (7) surrounding each sheath (32), that is capable of being driving the said rings (7) in a sliding movement along the said sheath (32) by means of drive means (5) characterised in that it is formed in the form of a one piece assembly including:

- support means (41) for each of the said scraping rings (7) comprising at least one sealed bush inside which the said scraping ring (7) is mounted;
- at least one drive arm (42) joining the said support means to the said rive means (5).

12. Manufacturing process for a drive element designed to equip an ultra violet radiation water disinfection device including a plurality of UV lights (31), each protected by at least one sheath (32) made of a material that is transparent to UV radiation with a shape that is more or less cylindrical, the said device comprising means for cleaning the said sheaths (32) including at least one scraping ring (7) surrounding each sheath (32), the said drive element being designed to drive the said rings (7) in a sliding movement along the said sheath (32) by means of drive means (5) characterised in that it comprises at least one manufacturing step of a one piece assembly including:

- support means (41) for each of the said scraping rings (7) comprising at least one sealed bush inside which the said scraping ring (7) is mounted;
- at least one drive arm (42) joining the said support means to the said rive means (5),
  - in which the said manufacturing step is achieved using at least one of the following techniques:
    - cutting out;
    - casting;
    - bending;
    - stamping;
    - heat forming.